quality of life using the EQ-SD collected in the SWISSspine registry. METHODS: The analysis was based on the SWISSspine registry, covering BKP treatment of 1027 fractures in 1723 patients with osteoporosis, trauma and cancer, from 2005–2011 in Switzerland. In the registry, data is collected before operation and at follow-ups at 3–6 months, 1 year and annually thereafter. The health-dimensional contribution to the overall quality of life improvements was analysed by isolating the impact of each patient’s change on quality of life based on the EQ-SD. If it was found that the change in QoL over one year was solely due to treatment received.

RESULTS: Mean age was 70.4 years and 70.1% of the patients were women. The mean accumulated QoL improvement compared to pre-surgery over one year was 0.40, 0.38 for osteoporotic, trauma and cancer patients, respectively. Changes in pain, as measured by EQ-SD, explained 45% of the QoL change for osteoporotic patients, 40% for patients with cancer and 35% for patients who suffered trauma. Mobility and self-care were the second and third most important dimensions respectively, varying between 19–29% for all indications. Improvement in usual activities contributed 9–14% to improvement in quality of life and anxiety 2–7%.

CONCLUSIONS: Changes in the pain dimension of health are the most important driver for overall quality of life in patients treated with BKP. However, ignoring the impact of mobility and self-care would lead to an underestimation of the actual improvement in overall quality of life.

PM78

THE SWITCH STUDY: THE IMPACT OF CONTINUOUS GLUCOSE MONITORING ON QUALITY OF LIFE AND TREATMENT SATISFACTION

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OBJECTIVES: To evaluate the metabolic effect of adding continuous glucose monitoring (CGM) to insulin pump therapy and the impact on Health Related Quality of Life (HRQOL), Treatment Satisfaction (TS)

METHODS: Eighty-one adults and 2472 children with Type 1 diabetes participated in a multicenter, randomized, controlled, cross-over study. Following a one month run-in period, subjects were randomized to CGM Sensor-ON or Sensor-OFF arms for six months, following a four month wash-out period between the two treatment arms for six additional months. Diabetes Treatment Satisfaction Questionnaire (status version, DTSQ) in adults and Pediatric Quality of Life Inventory (PedsQL) in children were collected at baseline and end of each treatment period. Analyses were controlled for baseline characteristics and effect in each age group.

RESULTS: Sensor use significantly improved glycemic control resulting in an HbA1c reduction of 0.43% in the intention to treat population (ITT). Adult TS improved significantly (p<0.012) compared to baseline, favoring Sensor-ON in ITT. There was no significant difference in the perceived frequency of hypo- or hyperglycemia with CGM. Sensor use was positively associated with TS (p<0.027) in the per-protocol group. There was no significant difference in children’s perceived overall HRQOL between Sensor-ON and Sensor-OFF. Individual items of the PedsQL and DTSQs were analyzed separately.

CONCLUSIONS: Adding CGM to pump therapy was associated with improvement in metabolic control and satisfaction in adults, and had an impact on the overall HRQOL in children. Increased usage of the sensor was associated with an increase of the TS score in adults.

MEDICAL DEVICE/DIAGNOSTICS-Health Care Use & Policy Studies

PMD79

A POPULATION-BASED STUDY OF THE USE OF BLOOD GLUCOSE MONITORING TEST STRIPS

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OBJECTIVES: To describe the use and cost of blood glucose monitoring test strips (BGMTS) in the first year of treatment with antidiabetes drugs. METHODS: We conducted a population-based cohort study using the Quebec (Canada) Health Insurance Board data. The cohort was made of Quebec inhabitants aged ≥ 18 years, who initiated oral AD treatment (AD) at any time of a monotherapy treatment (metformin or sulfonylureas), metformin, or insulin between January 1, 2000 and December 31, 2007 and for whom we had at least one year of follow-up in the database. New users were those with no insulin or oral AD claim in the 12 months prior to the first insulin or oral AD dispensing date (treatment initiation). Use and cost of BGMTS during the 365 days following treatment initiation were described according to the class of AD initially taken.

RESULTS: In this cohort of 116,201 new users of AD drugs the proportion of individuals who had at least one claim for BGMTS was 51%, 58% and 71% among users of sulfonylureas, metformin and insulin, respectively. The mean weekly number of strips used was 3.5, 3.7 and 14.6 among users of sulfonylureas, metformin and insulin, respectively for an associated mean daily cost of €0.45, €0.48 and €1.81. The proportion of individuals on insulin who received >14 BGMTS/week was 48%. CONCLUSIONS: The proportion of individuals on oral AD who obtained BGMTS seems high considering this practice is not recommended. On the other hand it is troublesome that almost the quarter of individuals on insulin did not fill any claim for BGMTS in their first year of treatment. Almost half of individuals on insulin used more tests than the suggested maximum weekly limit of 14. Results suggest there is a need to optimize the use of BGMTS.

PMD80

PREFERENCES FOR A NEW IMAGING TECHNIQUE TO DETECT BREAST CANCER

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OBJECTIVES: Currently, new techniques for the detection of breast cancer are being developed to cause less patient and medical discomfort and less morbidity. These techniques might increase screening attendance, and therefore increase the health gains of the population of women in the Netherlands. One of these techniques is photo acoustic mammography (PAM). However, it is still unknown how important attributes vary as discomfort as a trade-off against health gains are to its implementation in breast cancer screening. METHODS: The Analytic Hierarchy Process (AHP), a technique for multi-criteria analysis, was used to estimate patient and health care professionals’ preferences for three scenarios of PAM. These scenarios differed in the diagnostic performance that could be achieved by PAM. Preferences for the scenarios of PAM were compared with the preferences for X-ray mammography.

Criteria related to the efficiency in applying the technique, diagnostic performance, patient comfort and safety. We elicited preferences of around 30 health care professionals and 300 patients. RESULTS: Health care professionals considered the sensitivity of the imaging technique to be the criterion of utmost importance in the selection of a new imaging technique to detect breast cancer. Advantages of less discomfort have relatively less meaning according to the laboratory workers and radiologists involved. However, preferences among patients and health care providers differed. CONCLUSIONS: New techniques to detect breast cancer in screening programs should at least equal the diagnostic performance of X-ray mammography. Additional advantages could slightly increase screening attendance. X-ray mammography has a relatively lower diagnostic performance for patients with dense breasts. This subgroup of patients prefer to be the most new promising area for new detection techniques with a working principle that differs from X-ray mammography.